REPLACEMENT CLAIM SET

A method of treating a patient infected with hepatitis B virus and HIV comprising administering to the patient a first compound of β-L-2-amino-6-(OH, Cl, NH₂, or H)-9[(4-hydroxymethyl)-tetrahydrofuran-1-yl]purine or a compound of structure (I), (II), or (III), or a pharmaceutically acceptable salt or prodrug thereof,

$$R^{3}O$$
 $R^{3}O$
 R

in combination with a second compound selected from:

- a) 3'-azido-3'-deoxythymidine (AZT),
- b) 2',3'-dideoxyinosine (DDI),
- c) 2',3'-dideoxy-2',3'-didehydrothymidine (D4T),
- d) 2-hydroxymethyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane (FTC),
- e) 2-hydroxymethyl-5-(cytosin-1-yl)-1,3-oxathiolane (BCH-189),
- f) a non-nucleoside RT-inhibitor, or
- g) a physiologically acceptable salt or prodrug thereof,

wherein

- a) R¹ is hydrogen, fluoro, bromo, chloro, iodo, methyl or ethyl,
- b) R² is OH, Cl, NH₂, or H,
- c) R³ is hydrogen; C₁-C₂₀ alkyl; acyl in which the non-carbonyl moiety of the ester group is selected from straight, branched, or cyclic C₁-C₂₀ alkyl, phenyl, or benzyl; a naturally occurring or nonnaturally occurring amino acid; alkoxyalkyl; aralkyl; aryloxyalkyl; aryl; a dicarboxylic acid; a sulfonate ester; or a mono, di or triphosphate ester, and

- d) R⁴ is hydrogen; C₁-C₂₀ alkyl; acyl in which the non-carbonyl moiety of the ester group is selected from straight, branched, or cyclic C₁-C₂₀ alkyl, phenyl, or benzyl; alkoxyalkyl; aralkyl; aryloxyalkyl; or aryl.
- 3) The method of claim 1 wherein the first compound is administered in enantiomerically enriched form.
- 4) The method of claim 1 wherein the first compound is defined by structure (I).
- 5) The method of claim 1 wherein the first compound is defined by structure (II).
- 6) The method of claim 1 wherein the first compound is defined by structure (III).
- 7) The method of claim 1 wherein the first compound is defined by structure (IV)

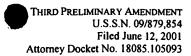
$$H_2N$$
 H_2
 IV).

8) The method of claim 1 wherein the first compound is defined by structure (V)

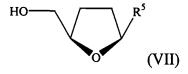
$$R^{1}$$
N
N
N
(V).

9) The method of claim 1 wherein the first compound is defined by structure (VI)

- 10) The method of claim 1 wherein the first compound is β -L-2',3'-dideoxycytidine (β -L-DDC) or a pharmaceutically acceptable salt or prodrug thereof.
- 11) The method of claim 1 wherein the first compound is β-L-2',3'-dideoxy-5-fluorocytidine (β-L-FddC) or a pharmaceutically acceptable salt or prodrug thereof.
- 12) The method of claim 1 wherein the first compound is β-L-2',3'-dideoxy-5-(halo)cytidine or a pharmaceutically acceptable salt or prodrug thereof.
- 13) The method of claim 1 wherein the first compound is β-L-2',3'-dideoxy-5-(methyl)cytidine or a pharmaceutically acceptable salt or prodrug thereof.
- 14) The method of claim 1 wherein the first compound is β-L-2-amino-6-(OH, Cl, NH₂, or H)-9-[(4-hydroxymethyl)-tetrahydrofuran-1-yl]purine or a pharmaceutically acceptable salt or prodrug thereof.
- 15) The method of claim 1 wherein the first compound is β-D-2-hydroxymethyl-5-(5-fluorocytosin-1-yl)-1,3-dioxolane (β-D-FDOC) or a pharmaceutically acceptable salt or prodrug thereof.
- A method of treating a patient infected with hepatitis B virus and HIV comprising administering to the patient β-L-2'-F-3'-deoxy-5-fluorocytidine (2'-F-β-L-FddC) or a pharmaceutically acceptable salt or prodrug thereof, in combination with a second compound selected from:
 - a) 3'-azido-3'-deoxythymidine (AZT),
 - b) 2',3'-dideoxyinosine (DDI),
 - c) 2',3'-dideoxy-2',3'-didehydrothymidine (D4T),
 - d) 2-hydroxymethyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane (FTC),
 - e) 2-hydroxymethyl-5-(cytosin-1-yl)-1,3-oxathiolane (BCH-189),



- f) a non-nucleoside RT-inhibitor, or
- g) a physiologically acceptable salt or prodrug thereof.
- A method of treating a patient infected with hepatitis B virus and HIV comprising administering to the patient β-L-2',3'-dideoxyadenosine (β-L-DDA) or a pharmaceutically acceptable salt or prodrug thereof, in combination with a second compound selected from:
 - a) 3'-azido-3'-deoxythymidine (AZT),
 - b) 2',3'-dideoxyinosine (DDI),
 - c) 2',3'-dideoxy-2',3'-didehydrothymidine (D4T),
 - d) 2-hydroxymethyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane (FTC),
 - e) 2-hydroxymethyl-5-(cytosin-1-yl)-1,3-oxathiolane (BCH-189),
 - f) a non-nucleoside RT-inhibitor, or
 - g) a physiologically acceptable salt or prodrug thereof.
- 18) The method of claim 17 wherein the β -L-DDA is administered in enantiomerically enriched form.
- 19) A method of treating a patient infected with hepatitis B virus and HIV comprising administering to the patient a first compound of structure (VII), or a pharmaceutically acceptable salt or prodrug thereof,



in combination with a second compound selected from:

- a) 3'-azido-3'-deoxythymidine (AZT),
- b) 2',3'-dideoxyinosine (DDI),
- c) 2',3'-dideoxy-2',3'-didehydrothymidine (D4T),
- d) 2-hydroxymethyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane (FTC),
- e) 2-hydroxymethyl-5-(cytosin-1-yl)-1,3-oxathiolane (BCH-189),
- f) a non-nucleoside RT-inhibitor, or
- g) a physiologically acceptable salt or prodrug thereof, wherein R⁵ is a purine.



THIRD PRELIMINARY AMENDMENT U.S.S.N. 09/879,854 Filed June 12, 2001 Attorney Docket No. 18085.105093

20) The method of claim 19 wherein the first compound is administered in enantiomerically enriched form.